

Attorney's Docket No.: 17023-002US1 / N5-50

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Michael A. Apicella et al. Art Unit : 1645
Serial No. : 09/077,572 Examiner : S. Devi
Filed : June 1, 1998
Title : NON-TOXIC MUTANTS OF PATHOGENIC GRAM-NEGATIVE BACTERIA

MAIL STOP AMENDMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

TERMINAL DISCLAIMER UNDER 37 CFR §§3.73(b) AND 1.321(b)

Pursuant to 37 CFR §3.73(b), UNIVERSITY OF IOWA RESEARCH FOUNDATION, a university, and THE REGENTS OF THE UNIVERSITY OF CALIFORNIA, a university, certify that they are the assignees of the entire right, title, and interest in the above application by virtue of:

A chain of title from the inventors of the patent application identified above, to the current assignee as shown below:

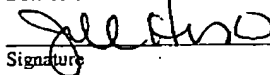
1. From Bradford W. Gibson to THE REGENTS OF THE UNIVERSITY OF CALIFORNIA. The document was recorded in the Patent and Trademark Office at Reel 010083, Frame 0800, a copy of which is attached.
2. From Michael A. Apicella, Melvin G. Sunshine, and Na-Gyong Lee to UNIVERSITY OF IOWA RESEARCH FOUNDATION. The document was recorded in the Patent and Trademark Office at Reel 010083, Frame 0818, a copy of which is attached.
3. From Rasappa Arumugham to AMERICAN CYANAMID CORPORATION. The document was recorded in the Patent and Trademark Office at Reel 010088, Frame 0026, a copy of which is attached.

CERTIFICATE OF TRANSMISSION BY FACSIMILE

I hereby certify that this correspondence is being transmitted by facsimile to the Patent and Trademark Office on the date indicated below.

February 7, 2005

Date of Transmission



Signature

Jill Huso

Typed or Printed Name of Person Signing Certificate

Applicant : Michael A. Apicella et al.
Serial No. : 09/077,572
Filed : June 1, 1998
Page : 2 of 3

Attorney's Docket No.: 17023-002US1 / N5-50

4. AMERICAN CYANAMID COMPANY changed its corporate name to WYETH HOLDING CORPORATION. The document was recorded in the Patent and Trademark Office at Reel 014677, Frame 0895, a copy of which is attached.

5. From WYETH HOLDING CORPORATION to UNIVERSITY OF IOWA RESEARCH FOUNDATION. The document was recorded in the Patent and Trademark Office at Reel 015444, Frame 0017, a copy of which is attached.

The undersigned has reviewed all the documents in the chain of title of the above-identified application and to the best of undersigned's knowledge and belief, title is in the assignee identified above.

The undersigned (whose title is supplied below) is empowered to act on behalf of the assignee.

Pursuant to 37 CFR §1.321(b), and to obviate a double patenting rejection, the assignee identified above hereby waives and disclaims the terminal portion of the term of the entire patent to be granted upon the above identified application subsequent to the expiration date of U.S. Application Serial No. 08/565,943, whereby the patent granted on this application and U.S. Application Serial No. 08/565,943 will expire on the same day, provided that any patent granted on the above identified application shall be enforceable only for and during such period that it is commonly owned with U.S. Application Serial No. 08/565,943.

The assignee identified above does not disclaim any terminal part of any patent granted on the above identified application prior to the expiration date of the full statutory term of U.S. Application Serial No. 08/565,943 in the event that it later: expires for failure to pay a maintenance fee, is held unenforceable, is found invalid, is statutorily disclaimed in whole or terminally disclaimed under 37 CFR §1.321(a), has all claims cancelled by a reexamination certificate, or is otherwise terminated prior to expiration of its statutory term, except for the separation of legal title as stated above. Assignee herein does not disclaim or otherwise affect any part of U.S. Application Serial No. 08/565,943.

This disclaimer runs with any patent granted on the above application and is binding upon the grantee, its successors or assigns.

Enclosed is a check for \$110 for the required fee pursuant to 37 CFR §1.20(d).

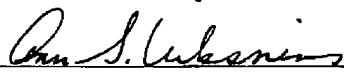
Applicant : Michael A. Apicella et al.
Serial No. : 09/077,572
Filed : June 1, 1998
Page : 3 of 3

Attorney's Docket No.: 17023-002US1 / N5-50

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon. patent issued thereon.

Respectfully submitted,

Date: 7 February 2005


Ann S. Viksnins
Reg. No. 37,748

Fish & Richardson P.C., P.A.
60 South Sixth Street
Suite 3300
Minneapolis, MN 55402
Telephone: (612) 335-5070
Facsimile: (612) 288-9696

60247195.doc



875.001052
UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
ASSISTANT SECRETARY AND COMMISSIONER
OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

SEPTEMBER 13, 1999

PTAS

SCHWEGMAN, LUNDBERG, WOESSNER
& KLUTH, P.A.
ANN S. VIKSNINS
P.O. BOX 2938
MINNEAPOLIS, MN 55402



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UNITED STATES PATENT AND TRADEMARK OFFICE
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 07/12/1999

REEL/FRAME: 010083/0800
NUMBER OF PAGES: 3

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

GIBSON, BRADFORD W.

DOC DATE: 09/17/1998

ASSIGNEE:

REGENTS OF THE UNIVERSITY OF
CALIFORNIA, THE
1111 FRANKLIN STREET
FIFTH FLOOR
OAKLAND, CALIFORNIA 94607-5200

SERIAL NUMBER: 09077572
PATENT NUMBER:

FILING DATE: 10/13/1998
ISSUE DATE:

KIMBERLY WHITE, EXAMINER
ASSIGNMENT DIVISION
OFFICE OF PUBLIC RECORDS

Schwegman, Lundberg,
Woessner & Kluth, P.A.

SEP 20 1999

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01-10-96:CMGRECORDATION FORM CC
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07-14-1999

COMMERCE
ademark Office

Atty Ref/Docket No.: 875.001US2



101088203

To the Honorable Commissioner of Patents and Trademarks: Please record the attached origi.

1. Name of conveying party(ies):

Bradford W. Gibson

2. Name and address of receiving party(ies):

Name: The Regents of the University of California

Additional name(s) of conveying party(ies) attached? [] Yes [X] No

3. Nature of conveyance:

Street Address: 1111 Franklin Street
Fifth Floor

[X] Assignment [] Merger
[] Security Agreement [] Change of Name
[] Other _____

City: Oakland State: CA ZIP: 94607-5200

Execution Date: September 17, 1999

Additional name(s) & address(es) attached? [] Yes [X] No

4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is: _____

A. Patent Application No.(s)

B. Patent No.(s)

Serial No. 09/077,572, filed October 13, 1998

Additional numbers attached? [] Yes [X] No

5. Name and address of party to whom correspondence
concerning document should be mailed:

Name: Ann S. Viksnins

6. Total number of applications and patents involved: 1

Address: Schwegman, Lundberg, Woessner & Kluth, P.A.
P.O. Box 2938
Minneapolis, MN 55402

7. Total fee (37 CFR 3.41): \$ 40.00 E

[X] Enclosed
[] Authorized to be charged to deposit account

8. Please charge any additional fees or credit any overpayments to our
Deposit account number: 19-0743

DO NOT USE THIS SPACE

9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Ann S. Viksnins/Reg. No. 37,748

Name of Person Signing

Signature

Date

Total number of pages including cover sheet: 3

OMB No. 0651-0011 (exp. 4/94)

07/13/1999 DNGUYEN 00000358 09077572

11 FC:581

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Washington, D.C. 20231

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ASSIGNMENT

WHEREAS, I, Bradford W. Gibson, residing at 1324 Peralta Avenue, Berkeley, CA 94702, made certain new and useful inventions and improvements for which I, together with Michael A. Apicella, Melvin G. Sunshine, Na-Gyong Lee and Rasappa Arumugham filed an application for Letters Patent of the United States on June 1, 1998, which application was assigned U.S. patent application serial number 09/077,572, and is entitled NON-TOXIC MUTANTS OF PATHOGENIC GRAM-NEGATIVE BACTERIA.

AND WHEREAS, The Regents of the University of California, a corporation organized and existing under and by virtue of the laws of the State of California, and having an office and place of business at 1111 Franklin Street, Fifth Floor, Oakland, California 94607-5200, (hereinafter "Assignee") is desirous of acquiring the entire right, title and interest in and to said inventions, improvements and application and in and to the Letters Patent to be obtained therefor;

NOW, THEREFORE, to all whom it may concern, be it known that for good and valuable consideration, the receipt and sufficiency whereof is hereby acknowledged, I have sold, assigned, and transferred, and by these presents do sell, assign and transfer unto said Assignee, its successors or assigns, the entire right, title and interest for all countries in and to all inventions and improvements disclosed in the aforesaid application, and in and to the said application, all divisions, continuations, or renewals thereof, all Letters Patent which may be granted therefrom, and all reissues or extensions of such patents, and in and to any and all applications which have been or shall be filed in any foreign countries for Letters Patent on the said inventions and improvements, including an assignment of all rights under the provisions of the International Convention, and all Letters Patent of foreign countries which may be granted therefrom; and I do hereby authorize and request the Commissioner of Patents and Trademarks to issue any and all United States Letters Patent for the aforesaid inventions and improvements to the said Assignee as the assignee of the entire right, title and interest in and to the same, for the use of the said Assignee, its successors and assigns.

Docket No.: 875.001US2
Serial No.: 09/077,572
Filing Date: June 1, 1998
Page 2 of 4

AND, for the consideration aforesaid, I do hereby agree that me and my executors and legal representatives will make, execute and deliver any and all other instruments in writing including any and all further application papers, affidavits, assignments and other documents, and will communicate to said Assignee, its successors and representatives all facts known to us relating to said improvements and the history thereof and will testify in all legal proceedings and generally do all things which may be necessary or desirable more effectually to secure to and vest in said Assignee, its successors or assigns the entire right, title and interest in and to the said improvements, inventions, applications, Letters Patent, rights, titles, benefits, privileges and advantages hereby sold, assigned and conveyed, or intended so to be.

AND, furthermore I covenant and agree with said Assignee, its successors and assigns, that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by me/us and that full right to convey the same as herein expressed is possessed by us.

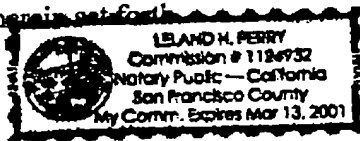
IN TESTIMONY WHEREOF, I have hereunto set my hand this ^x 17th day of ^x September, 1998.


Bradford W. Gibson

STATE OF ^x CALIFORNIA)
City and) ss.
COUNTY OF SAN FRANCISCO

On this ^x 17th day of SEPTEMBER, 1998 before me personally appeared Bradford W. Gibson
Or proved to me on the basis of satisfactory evidence,
to me known and known to me to be ~~the~~ the person described in and who executed the foregoing
instrument, and he/~~she~~ duly acknowledged to me that he/~~she~~ executed the same for the uses and
purposes therein set forth.

[SEAL]



X


Notary Public

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Michael A. Apicella et al.

Title: NON-TOXIC MUTANTS OF PATHOGENIC GRAM-NEGATIVE BACTERIA

Docket No.: 875.001US2

Filed: October 13, 1998

Examiner: S. Devi

Serial No.: 09/077,572

Due Date: N/A

Group Art Unit: 1641

Attn: Box Assignment

Hon. Commissioner for Patents and Trademarks

Washington, D.C. 20231

We are transmitting herewith the attached:

☒ An Assignment of the invention to The Regents of the University of California (2 pgs.) and Recordation Form Cover Sheet (1 pg.).

☒ A check in the amount of \$40.00 to cover the Assignment Recording Fee.

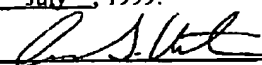
☒ A return postcard.

Other: ____

Please charge any additional required fees or credit overpayment to Deposit Account No. 19-0743.

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this Transmittal Letter and the paper, as described above, are being deposited in the United States Postal Service, as first class mail, in an envelope addressed to: Attn: Box Assignment, Hon. Commissioner for Patents and Trademarks, Washington, D.C. 20231, on this 14 day of July, 1999.

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.
P.O. Box 2938, Minneapolis, MN 55402 (612-373-6900)

By: 
Name: Ann S. Viksninis
Reg. No. 37,748
ASV:CMG:af



8 00105 2
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Patent and Trademark Office
ASSISTANT SECRETARY AND COMMISSIONER
OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

SEPTEMBER 13, 1999

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SCHWEGMAN, LUNDBERG, WOESSNER
& KLUTH, P.A.
ANN S. VIKSNINS
P.O. BOX 2938
MINNEAPOLIS, MN 55402



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RECORDATION DATE: 07/12/1999

REEL/FRAME: 010083/0818
NUMBER OF PAGES: 6

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:
APICELLA, MICHAEL

DOC DATE: 07/30/1998

ASSIGNOR:
SUNSHINE, MELVINE G.

DOC DATE: 07/30/1998

ASSIGNOR:
LEE, NA-GYONG

DOC DATE: 08/11/1998

ASSIGNEE:
UNIVERSITY OF IOWA RESEARCH
FOUNDATION
100 OAKDALE CAMPUS, #214 TIC
IOWA CITY, LOUISIANA 52242-5000SERIAL NUMBER: 09077572
PATENT NUMBER:FILING DATE: 10/13/1998
ISSUE DATE:Schwegman, Lundberg,
Woessner & Kluth, P.A.

SEP 20 1999

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010083/0818 PAGE 2

KIMBERLY WHITE, EXAMINER
ASSIGNMENT DIVISION
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07-14-1999

U.S. DEPARTMENT OF COMMERCE
Patent and Trademark Office

Atty Ref/Docket No. 875.001US2



101088204

To the Honorable Commissioner of Patents and Trademarks, Patent and Trademark Office, Washington, D.C. 20231, for filing of original documents or copy thereof.

1. Name of conveying party(ies):

Michael A. Apicella, Melvin G. Sunshine, Na-Gyong Lee

2. Name and address of receiving party(ies):

Name: University of Iowa Research Foundation

Additional name(s) of conveying party(ies) attached? [] Yes [X] No

3. Nature of conveyance:

[X] Assignment [] Merger
[] Security Agreement [] Change of Name
[] Other

Street Address: 100 Oakdale Campus
#214 TIC

City: Iowa City State: IA ZIP: 52242-5000

Execution Date: July 30, 1999, July 30, 1999, August 11, 1999

Additional name(s) & address(es) attached? [] Yes [X] No

4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is: _____

A. Patent Application No.(s)

B. Patent No.(s)

Serial No. 09/077,572, filed October 13, 1998

Additional numbers attached? [] Yes [X] No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Ann S. Viksnins

Address: Schwegman, Lundberg, Woessner & Kluth, P.A.
P.O. Box 2938
Minneapolis, MN 55402

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 3.41): \$ 40.00 E

[X] Enclosed
[] Authorized to be charged to deposit account

8. Please charge any additional fees or credit any overpayments to our
Deposit account number: 19-0743

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9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Ann S. Viksnins/Reg. No. 37,748
Name of Person Signing

Signature

7 July 1999
Date

Total number of pages including cover sheet: 6

OMB No. 0651-0011 (exp. 4/94)

07/13/1999 DNGLTEM 00000359 09077572

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612-288-9696
return

ASSIGNMENT

WHEREAS, WE, Michael A. Apicella, residing at 2646 Johnsons Crossing, N.E., Solon, IA 52333, and Melvin G. Sunshine, residing at 340 Raven Street, Iowa City, IA 52245, Administration and Na-Gyong Lee, residing at Apartment 27-1309, Nam-gu Hakik-2-dong, Sindong-a, Incheon, Korea made certain new and useful inventions and improvements for which We, together with Rasappa Arumugham and Bradford W. Gibson, filed an application for Letters Patent of the United States on June 1, 1998, which application was assigned U.S. patent application serial number 09/077,572, and is entitled NON-TOXIC MUTANTS OF PATHOGENIC GRAM-NEGATIVE BACTERIA.

AND WHEREAS, UNIVERSITY OF IOWA RESEARCH FOUNDATION, a corporation organized and existing under and by virtue of the laws of the State of Iowa, and having an office and place of business at 100 Oakdale Campus, #214 TIC, Iowa City, Iowa 52242-5000, (hereinafter "Assignee") is desirous of acquiring the entire right, title and interest in and to said inventions, improvements and application and in and to the Letters Patent to be obtained therefor;

NOW, THEREFORE, to all whom it may concern, be it known that for good and valuable consideration, the receipt and sufficiency whereof is hereby acknowledged, we have sold, assigned, and transferred, and by these presents do sell, assign and transfer unto said Assignee, its successors or assigns, the entire right, title and interest for all countries in and to all inventions and improvements disclosed in the aforesaid application, and in and to the said application, all divisions, continuations, or renewals thereof, all Letters Patent which may be granted therefrom, and all reissues or extensions of such patents, and in and to any and all applications which have been or shall be filed in any foreign countries for Letters Patent on the said inventions and improvements, including an assignment of all rights under the provisions of the International Convention, and all Letters Patent of foreign countries which may be granted therefrom; and we do hereby authorize and request the Commissioner of Patents and Trademarks to issue any and all United States Letters Patent for the aforesaid inventions and improvements to the said Assignee as the assignee of the entire right, title and interest in and to the same, for the use of the said Assignee, its successors and assigns.

Docket No.: 875.001US2
Serial No.: 09/077,572
Filing Date: June 1, 1998
Page 2 of 4

AND, for the consideration aforesaid, we do hereby agree that we and our executors and legal representatives will make, execute and deliver any and all other instruments in writing including any and all further application papers, affidavits, assignments and other documents, and will communicate to said Assignee, its successors and representatives all facts known to us relating to said improvements and the history thereof and will testify in all legal proceedings and generally do all things which may be necessary or desirable more effectually to secure to and vest in said Assignee, its successors or assigns the entire right, title and interest in and to the said improvements, inventions, applications, Letters Patent, rights, titles, benefits, privileges and advantages hereby sold, assigned and conveyed, or intended so to be.

AND, furthermore we covenant and agree with said Assignee, its successors and assigns, that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by me/us and that full right to convey the same as herein expressed is possessed by us.

IN TESTIMONY WHEREOF, I have hereunto set my hand this 30 day of July, 1998.

Michael A. Apicella
Michael A. Apicella

STATE OF x Iowa)
)ss.
COUNTY OF Johnson)

On this 30 day of July, 1998 before me personally appeared Michael A. Apicella to me known and known to me to be the person described in and who executed the foregoing instrument, and he/she duly acknowledged to me that he/she executed the same for the uses and purposes therein set forth.

[SEAL]

Barbara J. Jena
Notary Public

Docket No.: 875.001 US2
Serial No.: 09/077,572
Filing Date: June 1, 1998
Page 3 of 4

IN TESTIMONY WHEREOF, I have hereunto set my hand this 30 day of July, 1998.

Melvin G. Sunshine
Melvin G. Sunshine

STATE OF Towa)
)ss.
COUNTY OF Johnson)

On this 30 day of July, 1998 before me personally appeared Melvin G. Sunshine
to me known and known to me to be the person described in and who executed the foregoing
instrument, and he/she duly acknowledged to me that he/she executed the same for the uses and
purposes therein set forth.

[SEAL]

X Barbara K. Grenc
Notary Public

IN TESTIMONY WHEREOF, I have hereunto set my hand this 11 day of August, 1998.

STATE OF Republic of Korea
COUNTY OF Incheon City

Na-Gyong Lee

On this 11 day of August, 1998 before me personally appeared Na-Gyong Lee to me known and known to me to be the person described in and who executed the foregoing instrument, and he/she duly acknowledged to me that he/she executed the same for the uses and purposes therein set forth.

[SEAL]

We churuthan
Notary Public

경기도 수원시 팔달구 원천동 83-23
송전빌딩 4층

[제 41호 서식]

공증 인가 동수원종합법무법인
THE EAST SUWON LAW CORPORATION

대표전화: 211-1411~3
F A X: 211-7073

1998 년 등부 제 4090 호
Registered No. 1998 - 4090

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인 증 서
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승전빌딩 4층
(제42호 서식)

공증 인가 동수원종합법무법인
THE EAST SUWON LAW CORPORATION

대표전화: 211-1411~3
F A X: 211-7073

19 98 년 등부 제 4090 호 Registered No.19 98 - 4090

인 증

NOTARIAL CERTIFICATE

위 양도서 _____

NA-GYOUNG LEE.

에 기재된 이 나 경 _____

personally appeared before
me and admitted his(her)
subscription to the attached.

ASSIGNMENT.

본직의 면전에서 위 사서증서에
자기가 기명날인 한 것임을 자인하였다.

19 98 년 8 월 11 일

This is hereby attested on this 11TH day
of AUGUST 1998 at this office.

이 법인 사무소에서

위 인증한다.

공증 인가 동수원종합법무법인
경기도 수원시 팔달구 원천동 83-23

THE EAST SUWON LAW CORPORATION
83-23, Wonchun-dong, Pal dal-Ku,
Suwon city, Kyunggi-do, Korea

담당변호사

Attorney at Law acting as Notary Public

위 철 환

CHURL WHAN WE

본 법인은 법률 제3790호에 의거하여
법무부 장관으로부터 공증인 업무를 행

This office has been authorized by the
Minister of Justice, the Republic of Korea,
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Michael A. Apicella et al.

Title: NON-TOXIC MUTANTS OF PATHOGENIC GRAM-NEGATIVE BACTERIA

Docket No.: 875.001US2

Filed: October 13, 1998

Examiner: S. Devi

Serial No.: 09/077,572

Due Date: N/A

Group Art Unit: 1641

Attn: Box Assignment
Hon. Commissioner for Patents and Trademarks
Washington, D.C. 20231

We are transmitting herewith the attached:

☒ An Assignment of the invention to University of Iowa Research Foundation (5 pgs.) and Recordation Form Cover Sheet (1 pg.).

☒ A check in the amount of \$40.00 to cover the Assignment Recording Fee.

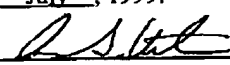
☒ A return postcard.

Other: ____

Please charge any additional required fees or credit overpayment to Deposit Account No. 19-0743.

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this Transmittal Letter and the paper, as described above, are being deposited in the United States Postal Service, as first class mail, in an envelope addressed to: Attn: Box Assignment, Hon. Commissioner for Patents and Trademarks, Washington, D.C. 20231, on this 1st day of July, 1999.

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.
P.O. Box 2938, Minneapolis, MN 55402 (612-373-6900)

By: 
Name: Ann S. Viksnins
Reg. No. 37,748
ASV:CMG:af



875-001US2
UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
ASSISTANT SECRETARY AND COMMISSIONER
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Washington, D.C. 20231

SEPTEMBER 14, 1999

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SCHWEGMAN, LUNDBERG, WOESSNER ETAL.
ANN S. VIKSNINS
P.O. BOX 2938
MINNEAPOLIS, MN 55402



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PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 07/12/1999

REEL/FRAME: 010088/0026
NUMBER OF PAGES: 3

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

ARUMUGHAM, RASAPPA

DOC DATE: 07/31/1998

ASSIGNEE:

AMERICAN CYANAMID COMPANY
FIVE GIRALDA FARMS
MADISON, NEW JERSEY 07940

SERIAL NUMBER: 09077572

FILING DATE: 10/13/1998

PATENT NUMBER:

ISSUE DATE:

SHARILL COLES, EXAMINER
ASSIGNMENT DIVISION
OFFICE OF PUBLIC RECORDS

Schwegman, Lundberg,
Woessner & Kluth, P.A.

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09-14-1999

DEPARTMENT OF COMMERCE
Patent and Trademark Office

Atty Ref/Docket No.: 875.001US2



101125996

To the Honorable Commissioner of Patents and Trademarks: Please

1. Name of conveying party(ies):

Rasappa Arumugham

2. Name and address of receiving party(ies):

Name: American Cyanamid Company

Additional name(s) of conveying party(ies) attached? [] Yes [X] No

3. Nature of conveyance:

☒ Assignment☐ Merger☐ Security Agreement☐ Change of Name☐ Other

Street Address: Five Giralda Farms

City: Madison State: NJ ZIP: 07940

Execution Date: July 31, 1998

Additional name(s) & address(es) attached? [] Yes [X] No

4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is: _____

A. Patent Application No.(s)

B. Patent No.(s)

Serial No. 09/077,572, filed October 13, 1998

Additional numbers attached? [] Yes [X] No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Ann S. Viksnins

Address: Schwegman, Lundberg, Woessner & Kluth, P.A.
P.O. Box 2938
Minneapolis, MN 55402

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 3.41): \$ 40.00

☒ Enclosed☐ Authorized to be charged to deposit account8. Please charge any additional fees or credit any overpayments to our
Deposit account number: 19-0743

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9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Ann S. Viksnins/Reg. No. 37,748

Name of Person Signing

Signature

Date

Total number of pages including cover sheet: 3

OMB No. 0651-0011 (exp. 4/94)

07/14/1999 DMLYEM 00000030 09077572

11 FC:581

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Public burden reporting for this sample cover sheet is estimated to average about 30 minutes per document to be recorded, including time for reviewing the document and gathering the data needed, and completing and reviewing the sample cover sheet. Send comments regarding this burden estimate to the U.S. Patent and Trademark Office, Office of Information Systems, PK2-1000C, Washington, D.C. 20231, and to the Office of Management and Budget, Paperwork Reduction Project (0651-0011), Washington, D.C. 20503.

ASSIGNMENT

WHEREAS, I, Rasappa Arumugham, residing at 15 Elatia Circle, Pittsford, NY 14534, made certain new and useful inventions and improvements for which I, together with Michael A. Apicella, Melvin G. Sunshine, Na-Gyong Lee and Bradford W. Gibson filed an application for Letters Patent of the United States on June 1, 1998, which application was assigned U.S. patent application serial number 09/077,572, and is entitled NON-TOXIC MUTANTS OF PATHOGENIC GRAM-NEGATIVE BACTERIA.

AND WHEREAS, American Cyanamid Company, a corporation organized and existing under and by virtue of the laws of the State of Maine, and having an office and place of business at Five Giralda Farms, Madison, NJ 07940, (hereinafter "Assignee") is desirous of acquiring the entire right, title and interest in and to said inventions, improvements and application and in and to the Letters Patent to be obtained therefor;

NOW, THEREFORE, to all whom it may concern, be it known that for good and valuable consideration, the receipt and sufficiency whereof is hereby acknowledged, I have sold, assigned, and transferred, and by these presents do sell, assign and transfer unto said Assignee, its successors or assigns, the entire right, title and interest for all countries in and to all inventions and improvements disclosed in the aforesaid application, and in and to the said application, all divisions, continuations, or renewals thereof, all Letters Patent which may be granted therefrom, and all reissues or extensions of such patents, and in and to any and all applications which have been or shall be filed in any foreign countries for Letters Patent on the said inventions and improvements, including an assignment of all rights under the provisions of the International Convention, and all Letters Patent of foreign countries which may be granted therefrom; and I do hereby authorize and request the Commissioner of Patents and Trademarks to issue any and all United States Letters Patent for the aforesaid inventions and improvements to the said Assignee as the assignee of the entire right, title and interest in and to the same, for the use of the said Assignee, its successors and assigns.

Docket No.: 875.001US2
Serial No.: 09/077,572
Filing Date: June 1, 1998
Page 2 of 4

AND, for the consideration aforesaid, I do hereby agree that I and my executors and legal representatives will make, execute and deliver any and all other instruments in writing including any and all further application papers, affidavits, assignments and other documents, and will communicate to said Assignee, its successors and representatives all facts known to us relating to said improvements and the history thereof and will testify in all legal proceedings and generally do all things which may be necessary or desirable more effectually to secure to and vest in said Assignee, its successors or assigns the entire right, title and interest in and to the said improvements, inventions, applications, Letters Patent, rights, titles, benefits, privileges and advantages hereby sold, assigned and conveyed, or intended so to be.

AND, furthermore I covenant and agree with said Assignee, its successors and assigns, that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by me/us and that full right to convey the same as herein expressed is possessed by me.

IN TESTIMONY WHEREOF, I have hereunto set my hand this 31st day of July, 1998.

x Rasappa Arumugham
Rasappa Arumugham

STATE OF New York
ss.
COUNTY OF Monroe

On this 31 day of July, 1998 before me personally appeared Rasappa Arumugham to me known and known to me to be the person described in and who executed the foregoing instrument, and he/she duly acknowledged to me that he/she executed the same for the uses and purposes therein set forth.

[SEAL]

KAREN M. O'NEILL
Notary Public, State of New York
Qualified in Monroe County
Commission Expires April 19, 2000

x Karen M. O'Neill
Notary Public

OPR/ASSIGNMENTS

6/2/04 8:12 PAGE 2/4 RightFAX



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SUITE 3300
MINNEAPOLIS, MN 55402

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RECORDATION DATE: 05/28/2004

REEL/FRAME: 014677/0895
NUMBER OF PAGES: 2

BRIEF: CHANGE OF NAME (SEE DOCUMENT FOR DETAILS).
DOCKET NUMBER: 17023002US1

ASSIGNOR:
AMERICAN CYANAMID COMPANY

DOC DATE: 12/31/2002

ASSIGNEE:
WYETH HOLDINGS CORPORATION
FIVE GIRALDA FARMS
MADISON, NEW JERSEY 07940

SERIAL NUMBER: 09077572

FILING DATE: 10/13/1998

PATENT NUMBER:

ISSUE DATE:

TITLE: NON-TOXIC MUTANTS OF PATHOGENIC GRAM-NEGATIVE BACTERIA

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6/2/04 8:12 PAGE 3/4 RightFAX

014677/0895 PAGE 2

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ASSIGNMENT DIVISION
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OPR/ASSIGNMENTS 6/2/04 8:12 PAGE 4/4 RightFAX

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05/28/2004
700088182Substitute Form PTO-1595
Attorney Docket No.: 17023-002US1
Client's Ref. No.: N5-50RECORDATION FORM COVER SHEET
PATENTS ONLY

Commissioner for Patents: Please record the attached original document(s) or copy(ies).	
1. Name of conveying party(ies): American Cyanamid Company Additional name(s) attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	2. Name and address of receiving party(ies): Wyeth Holdings Corporation Five Giralda Farms Madison, New Jersey 07940 Additional names/addresses attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
3. Nature of conveyance: <input type="checkbox"/> Assignment <input type="checkbox"/> Merger <input type="checkbox"/> Security Agreement <input checked="" type="checkbox"/> Change of Name <input type="checkbox"/> Other: Execution Date: 12/31/2002	
4. Application number(s) or patent number(s): If this document is being filed with a new application, the execution date of the application is: A. Patent Application No(s): 09/077,572 B. Patent No(s): Additional numbers attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Name/address of party to whom correspondence concerning document should be mailed: ANN S. VIKSNINS Fish & Richardson P.C., P.A. 60 South Sixth Street Suite 3300 Minneapolis, MN 55402	6. Total number of applications/patents involved: 1 7. Total fee (37 CFR §3.41): \$40 <input type="checkbox"/> Enclosed <input checked="" type="checkbox"/> Authorized to charge Deposit Account. 8. Deposit Account No.: 06-1050 Please apply any additional charges, or any credits, to our Deposit Account No. 06-1050.
DO NOT USE THIS SPACE	
9. Statement and Signature: <i>To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.</i> Ann S. Viksnins Reg. No. 37,748 Name of Person Signing Signature: <u><i>Ann S. Viksnins</i></u> Date: <u>28 May 2004</u>	
Total number of pages including coversheet, attachments and document: 3	

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CERTIFICATE OF TRANSMISSION BY FACSIMILE

I hereby certify that this correspondence is being transmitted by facsimile to the Patent and Trademark Office on the date indicated below.

May 28, 2004
Date of Transmission

Signature

Jill Huso
Typed Name of Person Signing Certificate

CH \$40.00 061050 09077572

State of Maine



Department of the Secretary of State

I, the Secretary of State of Maine, certify that according to the provisions of the Constitution and Laws of the State of Maine, the Department of the Secretary of State is the legal custodian of the Great Seal of the State of Maine which is hereunto affixed and of the records of organization, amendment, and dissolution of corporations and annual reports filed by the same.

I further certify that WYETH HOLDINGS CORPORATION, formerly AMERICAN CYANAMID COMPANY is a duly organized business corporation under the laws of the State of Maine and that the date of incorporation is July 23, 1907.

I further certify that an amendment to change the legal name from AMERICAN CYANAMID COMPANY to WYETH HOLDINGS CORPORATION was filed on December 31, 2002.

I further certify that said business corporation has filed annual reports due to this Department, and that no action is now pending by or on behalf of the State of Maine to forfeit the charter and that according to the records in the Department of the Secretary of State, said corporation is a legally existing business corporation in good standing under the laws of the State of Maine at the present time.

In Testimony Whereof, I have caused the Great Seal of the State of Maine to be hereunto affixed. Given under my hand at Augusta, Maine, February 3, 2004.



A handwritten signature in black ink, appearing to read "Dan Gwadosky".

DAN GWADOSKY
SECRETARY OF STATE

nigntrax

12/14/04 10:27

PAGE 002/004

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RECORDATION DATE: 12/09/2004

REEL/FRAME: 015444/0017
NUMBER OF PAGES: 3

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).
DOCKET NUMBER: 7023-002US1

ASSIGNOR:

WYETH HOLDINGS CORPORATION

DOC DATE: 12/01/2004

ASSIGNEE:

UNIVERSITY OF IOWA RESEARCH
FOUNDATION
214 TECHNOLOGY INNOVATION CENTER
IOWA CITY, IOWA 52242

SERIAL NUMBER: 09077572

FILING DATE: 10/13/1998

PATENT NUMBER:

ISSUE DATE:

TITLE: NON-TOXIC MUTANTS OF PATHOGENIC GRAM-NEGATIVE BACTERIA

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PAGE 003/004

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015444/0017 PAGE 2

RHONDA NICOL, SUPERVISOR
ASSIGNMENT DIVISION
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PAGE 004/004

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12/09/2004
700137479Substitute Form PTO-1596
Attorney Docket No.: 7023-002US1
Client's Ref. No.: N5-50RECORDATION FORM COVER SHEET
PATENTS ONLY

Commissioner for Patents: Please record the attached original document(s) or copy(ies).	
1. Name of conveying party(ies): Wyeth Holdings Corporation Additional name(s) attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	2. Name and address of receiving party(ies): University of Iowa Research Foundation 214 Technology Innovation Center Iowa City, IA 52242 Additional names/addresses attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
3. Nature of conveyance: <input checked="" type="checkbox"/> Assignment <input type="checkbox"/> Merger <input type="checkbox"/> Security Agreement <input type="checkbox"/> Change of Name <input type="checkbox"/> Other: Execution Date: 12/01/04	
4. Application number(s) or patent number(s): If this document is being filed with a new application, the execution date of the application is: A. Patent Application No(s): 08/077,572 B. Patent No(s): Additional numbers attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Name/address of party to whom correspondence concerning document should be mailed: ANN S. VIKSNINS Fish & Richardson P.C., P.A. 60 South Sixth Street Suite 3300 Minneapolis, MN 55402	6. Total number of applications/patents involved: 1 7. Total fee (37 CFR 53.41): \$40 <input type="checkbox"/> Enclosed <input checked="" type="checkbox"/> Authorized to charge Deposit Account. 8. Deposit Account No.: 08-1050 Please apply any additional charges, or any credits, to our Deposit Account No. 08-1050.
DO NOT USE THIS SPACE	
9. Statement and Signature: To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. Ann S. Viksnins Reg. No. 37,748 Name of Person Signing Signature Date: 9 December 2004	
Total number of pages including coversheet, attachments and document: 3	

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CERTIFICATE OF TRANSMISSION BY FACSIMILE

I hereby certify that this correspondence is being transmitted by facsimile to the Patent and Trademark Office on the date indicated below.

December 9, 2004
Date of Transmission

Signature

Kathryn J. Sanderson
Typed Name of Person Signing Certificate

Docket No:17023-002US1 N5-50
Patent

Assignment

This assignment hereby revokes and replaces the Assignment between Wyeth Holdings Company and University of Iowa Research Foundation dated July 30, 2004 which was recorded in the United States Patent and Trademark office on August 10, 2004 under Reel 015085 Frame 0252. This replacement Assignment is being executed and filed to replace a document identifying a non-existing corporate entity with the correct corporate entity involved in this transaction, Wyeth Holdings Corporation.

For good and valuable consideration **WYETH HOLDINGS CORPORATION**, a corporation of Maine, having its principal place of business at Five Giralda Farms, Madison, New Jersey 07940-0874 (hereinafter referred to as **ASSIGNOR**)

having rights which were previously assigned by inventor Rasappa Arunugham to American Cyanamid Company and recorded on July 12, 1999 under Reel 010088, Frame 0026; American Cyanamid Company changed its name to Wyeth Holdings Corporation, such name change being recorded May 28, 2004 under Reel 014677 Frame 0895,

hereby sells, assigns and transfers to:

UNIVERSITY OF IOWA RESEARCH FOUNDATION, a corporation of Iowa, having a place of business at 214 Technology Innovation Center, University of Iowa, Iowa City, Iowa 52242 (hereinafter referred to as **ASSIGNEE**) and its successors, assigns and legal representatives the entire right, title and interest in and to U.S. application Serial No. 09/077,572 filed on: June 1, 1998 entitled:

NON-TOXIC MUTANTS OF PATHOGENIC GRAM-NEGATIVE BACTERIA

and, in and to, the United States Letters Patent resulting therefrom.

ASSIGNOR hereby covenants that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment.

ASSIGNOR authorizes and requests the Commissioner of Patents to issue any and all Letters Patent of the United States resulting from the aforesaid application to said **ASSIGNEE**.

WITNESS my hand and seal this / 5th day of December, 2004.

WYETH HOLDINGS CORPORATION

By: 
William H. Calnan
Assistant Secretary

L.S.

